



Office of the Chief Executive

735 Randolph Street, Suite 1900
Detroit, Michigan 48226

March 1, 2017

The Honorable
Board of Directors
Great Lakes Water Authority

Dear Chairman Daddow and Directors:

Regarding: CEO's Report – February, 2017

Work continues on refinements to the biennial budget as today we hold the public hearing for the budget and preliminary proposed charges for FY 18. While adjustments continue to be made on line items in the budget, the budget remains within the parameters that are the basis for the preliminary proposed charges.

Conversations with several communities evaluating new long term water service with GLWA continue. On Monday March 6, GLWA will discuss our proposal for service to Lyon Township with the Lyon Township Board.

The Comprehensive Water Resource Recovery Facility Master Planning effort is nearing its launch. The evaluation team and staff have completed their due diligence and GLWA has announced our intent to award the contract to CDM Smith Michigan Inc. Contract negotiations are underway with an intent to request Board approval of the contract in March. This planning effort will embrace the One Water concept, recognizing the true nature of a regional system where the pipes know no boundaries and we can seek to optimize the benefit of regional investments in sewer systems to the greatest extent possible for the regions benefit. The planning effort will also include utility of the future concepts. Stay tuned to hear about exciting new opportunities to improve water quality at lower costs than would otherwise be achievable. Meetings of the Master Plan Steering Committee will be scheduled following Board approval.

With thanks to GLWA's Public Affairs Group, GLWA has published its 2016 Year in Review, a 32-page chronicle of the Authority's first year of operations. The document is available in both print and electronic formats, and is a compilation of GLWA's accomplishments over the last year, as well as an outlook of what is to come as the Authority moves forward. The official rollout of the document begins with GLWA's customer communities at the March 2, 2017, TAC/Steering Committee meeting, and continues throughout the month of March with a series of employee town hall meetings being held at GLWA facilities. The town hall meetings will include a presentation on the Year in Review, and employees will have the opportunity to participate in a question and answer session with CEO Sue McCormick. The Year in Review will be posted on GLWA's website, and will also be distributed to local, regional and national media. Video vignettes are also being produced to highlight a number of sections in the report.

PLANNING SERVICES

Asset Management and CIP Group

The Asset Management and CIP Group, in conjunction with the Financial Services Area, are continuing to make modifications and improvements to the Draft FY 2018-2022 Capital Improvement Plan. Modifications and improvements to the plan will continue as a result of several initiatives underway to ensure coordination of the CIP with the overall budget.



The Asset Management Strategic Organization (AMSO) is continuing to progress. To review, this is an asset management governance and organizational structure that provides the framework by which various functions within the Authority are commonly united with a focus upon how their individual activities contribute to asset management. The purpose of GLWA AMSO is to create a cross functional team where all members and business units clearly understand the larger picture for asset management. It also provides the mechanism for implementing common asset management practices throughout the

Authority which support GLWA's mission.

One important work team related to the AMSO structure that has been recently developed and implemented is the Shared Resources Work Team. The purpose of this team is to prioritize, coordinate, and conduct projects, initiatives, and/or tasks that have an impact on both GLWA and DWSD with respect to business applications such as the Oracle Work and Asset Management (WAM) system and the Geographic Information System (GIS) that require the coordination and prioritization of shared IT resources between GLWA and DWSD.

System Analytics and Meter Operations Group

The System Analytics and Meter Operations Group continues to work on improvements to the Greater Detroit Regional Sewerage System (GDRSS) portal. Improvements being contemplated presently are the addition of real-time rainfall data and adding more historical data to the reporting. The next Wastewater Analytics Task Force is scheduled for March 31, 2017.

Meter Operations replaced wholesale water meters for Van Buren and Sterling Heights, upgrading them to a newer and more accurate meter technology. Both the meter pits were also rehabilitated to provide a safer working environment for operational staff.

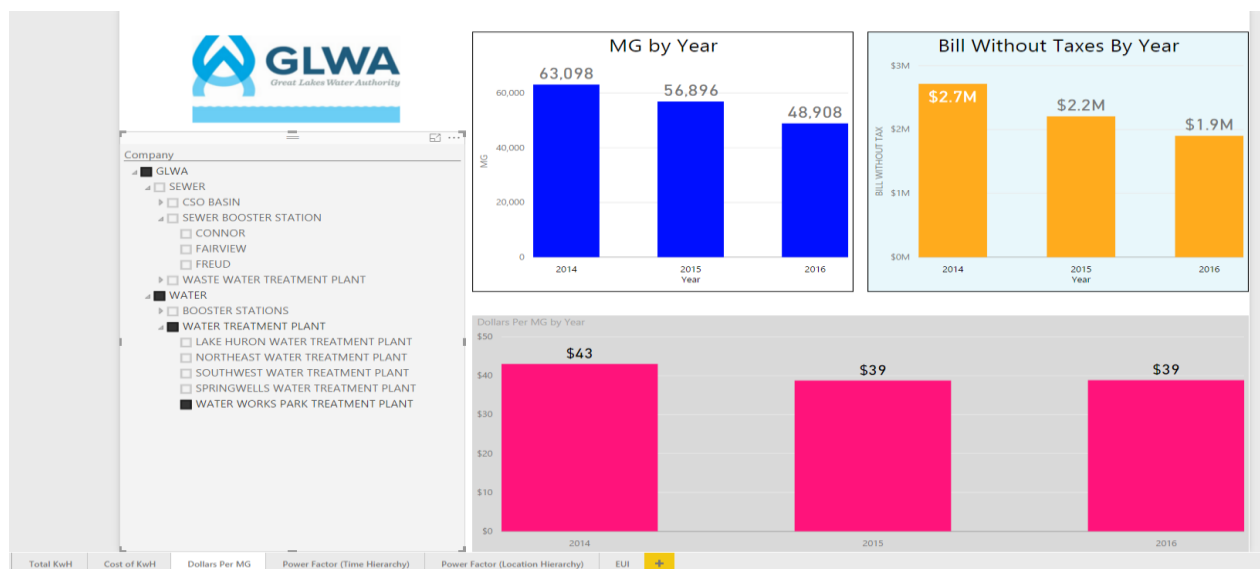
PLANNING SERVICES (continued)

System Analytics emailed 228 active Wholesale Automatic Meter Reading (WAMR) users soliciting feedback on WAMR portal improvements. Thus far, several responses have been received and a priority list is being developed.

Energy Management Group

A draft Energy Management dashboard is in production. The dashboard compiles data from monthly electric bills including among other attributes, energy usage (KwH), total monthly energy bill and cost per KwH. This data is combined within a single database that also includes water production data from all five water treatment plants. The output is a dashboard that tells a story of how our facilities are performing, highlighting areas of excellence as well as areas for improvement.

Initial key performance indicators have been developed that allows the comparison of each facility by family (sewer or water), by type (water treatment, booster station, Water Resource Recovery Facility treatment or CSO), or combined GLWA assets. The example below shows multiple attributes in one display, MG/Year, Total Bill/Year and the Dollars/MG by Year for Water Works Park. The dashboard is web based, customizable and can be accessed from any location.



The data set is currently not real-time and is reliant primarily on billing data that refreshes approximately every 30 days. Future improvements will include real-time energy consumption data that will coincide with the rollout of the electric meter program presently in the approved Capital Improvement Program.

PLANNING SERVICES (continued)

Research and Innovation

GLWA is supporting a grant application to the Water Research Foundation (WRF) requesting funding to demonstrate the tangible benefits from the use and analysis of Advanced Metering Infrastructure (AMI) data. The grant applicant has assembled a group of seven utility participants, who have pledged in-kind contributions, to participate in effort to better understand additional ways to use AMI data analytics; for example, identify non-revenue water losses, improve meter maintenance and replacement practices, and improve customer interactions. The grant application was submitted February 3, 2017.

Team members met representatives from the New England Fertilizer Company (NEFCO) to discuss our desire to move toward a Utility of the Future and what impacts on biosolids should be investigated prior to moving forward. NEFCO was very interested in our effort and stated that overall there would be more benefits than difficulties moving to processing of anaerobically digested biosolids. They provided preliminary estimates of possible revisions to the energy balance and offered to support our efforts to evaluate anaerobic digestion and energy recovery.

The team has begun to interface with Water Environment & Reuse Foundation (WERF) to follow their ongoing projects that are relevant to GLWA. GLWA plans to join WERF to secure full access to WERF projects and tools. Additionally WERF will provide opportunities to seek grants, partner with other utilities, and quick start our own efforts.

WATER RESOURCE RECOVERY FACILITY

Water Resource Recovery Facility Operations and Compliance

The Water Resource Recovery Facility was in compliance with all National Pollutant Discharge Elimination System and Michigan Department of Environmental Quality water quality permits in the month of January 2017.

Water Resource Recovery Facility Engineering

Fire Remediation

Remediation of the area of Incinerator Complex II that was damaged by the March 2016 fire continues. Complex II Incinerators #7 and #8 are presently in warm-up, with all of the incinerators scheduled to be brought online by April 2017.

Preliminary start-up burner and safety checks, incinerator equipment verification, and instrumentation loop checks continue as well. Conveyor restoration, lighting improvements, wall panel rehabilitation, and the fire suppression system work is ongoing.

WATER RESOURCE RECOVERY FACILITY (continued)

Biosolids Dryer Facility (BDF)

The contractor has completed some design modifications and the five-day demonstration tests for all four trains. Initial data shows that all four trains meet the throughput requirement, but the four-train simultaneous demonstration test remains to be completed. The contractor has installed the ferric chloride system to reduce sulfur dioxide air emissions, and will perform full scale testing soon. Recycle bin modification work remains to be scheduled.

Rouge River Outfall Disinfection Project

The Contractor submitted the Guaranteed Maximum Price (GMP) to GLWA on January 20, 2017. Review and discussions of the GMP are ongoing. The isolation and dewatering of one of the main Water Resource Recovery Facility discharge conduits continues. A more efficient method of removing solids has been implemented with the intent to optimize the dewatering schedule.

Industrial Waste Control (IWC)

On January 6, 2017, the U.S. Environmental Protection Agency forwarded their final report for the April 2016 Laboratory Inspection Audit. Their report included no serious issues. IWC sent their response with the requested supporting documentation on February 3, 2017.

WATER OPERATIONS

Utility Management Conference

The Chief Operating Officer had the privilege of attending the 2017 Utility Management Conference where Leadership, Succession Planning, Workforce Development, Innovation, and Optimization were a few of the topics of focus. There were some interesting ideas learned that will be applied to improve the development of leadership in Water Operations.

On January 30th, nine Water Supply Operations employees attended the Fundamentals of Basic Math course offered by the Michigan Department of Environmental Quality in Lansing. The training course was developed for operators struggling with math or those who needed to review basic math before moving on to more advanced computations required for drinking water operators. The topics reviewed included fractions, decimals, area, volume, units of measure, and conversion and their significance to drinking water.

Eight Water Works Park Plant team members attended a one-day course on Real-Time Source Water Monitoring sponsored by Healthy Urban Waters of Wayne State University on January 26, 2017 and on February 2, 2017. This free course, offered for operators and staff of municipal water treatment plants along the Huron to Erie Corridor, had three objectives:

WATER OPERATIONS (continued)

1. To increase operators' awareness to source water contamination – natural, industrial, agricultural, and municipal.
2. To educate operators about real-time source monitoring as a tool to protect the consumer.
3. To provide hands-on experience with a continuous Volatile Organic Carbon (VOC) instrument (inficon CMS 5000).

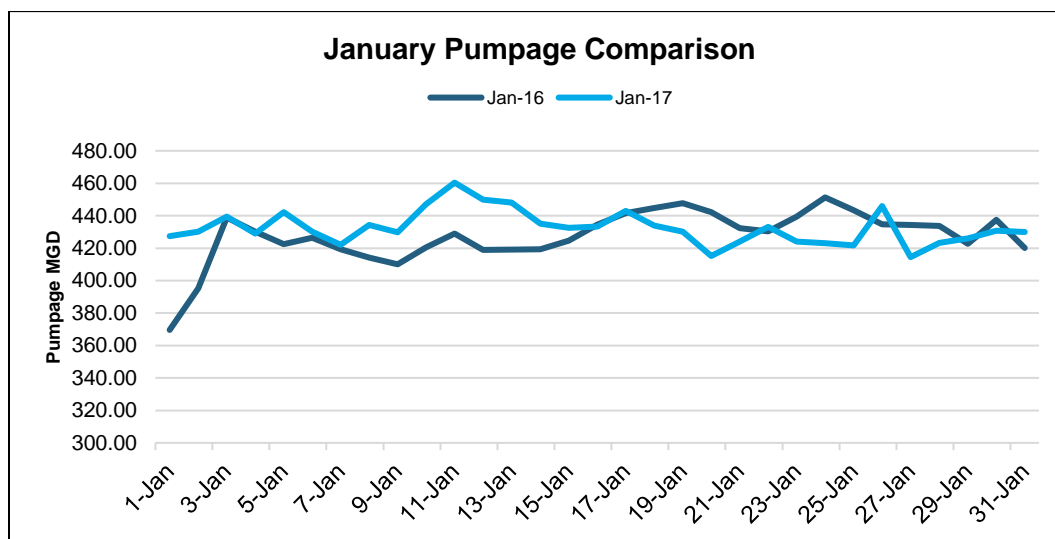
Additionally, participants were given a tour of Marysville Water Treatment Plant.

Taste and Odor Issue that Impacted Several Downriver Communities

The Taste and Odor incident with the Downriver Communities is now closed. We hosted the following meetings to effectively communicate what happened, why it happened, and shared our plans moving forward to prevent this type of incident in the future. An after-action report has been posted since late January. We also hosted a Media roundtable on January 20, 2017; a Leadership roundtable on January 24, 2017 with Downriver Community Leadership; presented at the rates rollout for all our customer communities on January 26, 2017; and attended a Downriver Town Hall on February 13, 2017. The next step is to create a communications team with all of our customer communities to address the concerns raised in this incident.

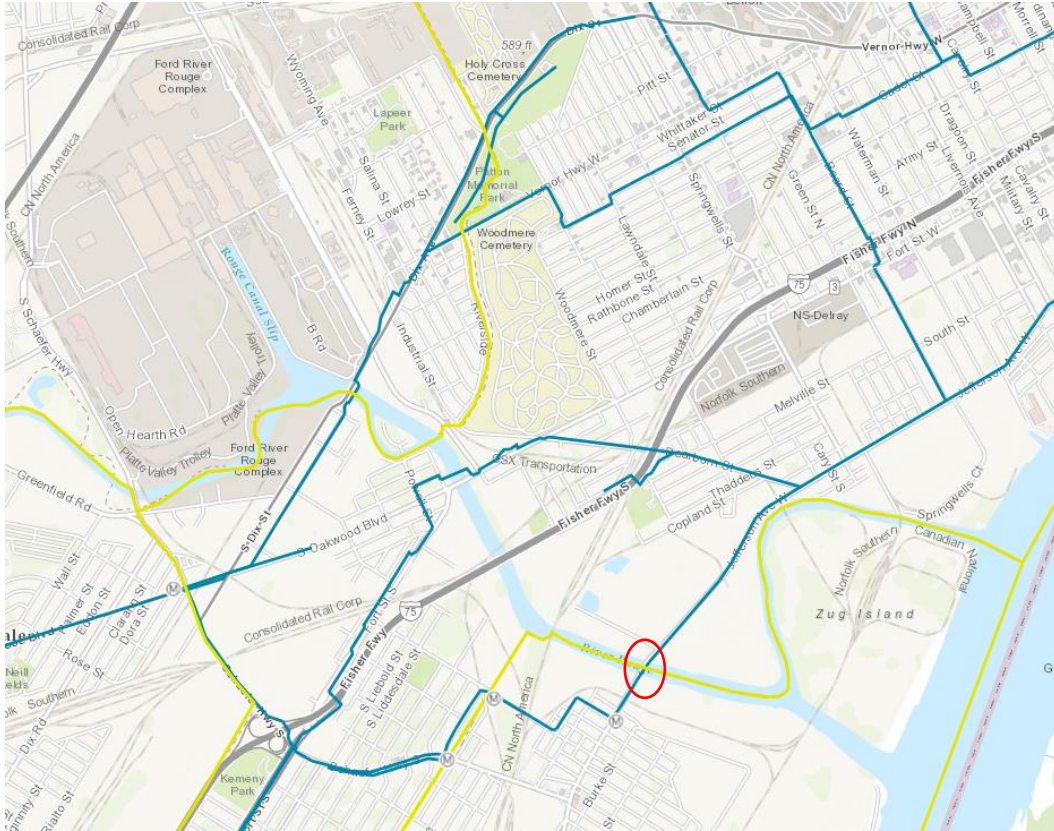
Systems Control

January Pumpage Data



Construction of the 30-inch water main under the Rouge River started on January 19, 2017. The final tie-ins on both sides of the river was delayed due to leaky gate valves and higher river water levels coming through the existing main. The final tie-ins of the new 30-inch main was completed on February 18th, and disinfection of the main is underway. The main will be in service by Friday, March 3rd, contingent upon water quality results.

WATER OPERATIONS (continued)



30-inch Water Main under the Rouge River



Existing 42-inch main (on top)



Existing 30-inch main

INFORMATION TECHNOLOGY

The Infrastructure and Security teams, in conjunction with ATT Managed Security Services, has implemented and tested Distributed Denial of Service (DDOS) protection for the GLWA/DWSD network. This DDOS protection is a service that ATT provides, that protects the GLWA/DWSD network from simultaneous network attacks from hundreds or even thousands of internet-based systems.

The Infrastructure and Security teams, in conjunction with ATT Managed Security Services, has implemented and tested additional security measures, after a recent attack on the GLWATER.ORG website. These include enhanced security settings on the website itself, along with additional detection signatures on the Intrusion Prevention System (IPS).

The Infrastructure team has upgraded our Barracuda web filter. This technology enables GLWA to monitor and block access to dangerous or non-appropriate web sites which enhances our cyber security position.

Our overall vulnerability risk score has decreased by over 25% over the past two months, as shown in the Symantec CCS scans (this is major progress).

The Business Applications Delivery Team has:

- Deployed two new self-service reports to WAM that will allow the users to interactively gather statistics about Work Orders, without requesting assistance from IT. The reports show the work order count, a brief work order listing, and a breakout by work order type. The reports can be run for DWSD and GLWA.
- Deployed changes to the DWSD Maintenance and Repair (M&R) hydrant process to reduce the number of work orders for non-DWSD-managed hydrants. Updated hydrant status for those non-DWSD-managed hydrants, to make them consistent between GIS and WAM, supporting M&R's need to get to 100% hydrant inspection for 30,000 hydrants.
- Deployed numerous changes to improve the accuracy of the asset determination for the M&R work order creation. Changes were made to the logic that determines the problem address from the citizen's portal (Improve Detroit) as well as map sections from enQuesta (Customer Billing System).

The Enterprise Applications Team has cleaned up and reorganized the SharePoint Intranet homepage content to more clearly separate GLWA and DWSD content. This is a vital step in the creation of separate Intranet sites for DWSD and GLWA.

A series of project kickoff activities were held the week of February 20 for the new Pretreatment Information Management System (PIMS).

INFORMATION TECHNOLOGY

GLWA's IT Project Management Office has successfully brought the project management for BS&A's implementation in-house. This includes developing processes for interfacing information into BS&A from other software systems including WAM and Ceridian.

The Enterprise Applications Team has introduced a new Reporting and Business Intelligence Platform with sample reports and dashboards. Select user groups across the organization are currently learning and using the new tools. Various new pilot reports and dashboards have been created for Finance, Water Operations, Logistics and Materials Management, Information Technology, and others. This is the start of creating an enterprise Data Warehouse for GLWA, where source system data sets can be merged together in a way to create reports and analyze data for more informed decision making. This platform is built using software and systems that we already had in-house thus reducing the need to buy a new Business Intelligence platform at the present time.

The Service Delivery Team in conjunction with Infrastructure and Security has led an initiative to improve computer device critical patch compliance. Of the approximately 1150 devices reporting, we have reached 99% compliance utilizing automated patching of Microsoft quality and security patches via Dell Kace.

PUBLIC AFFAIRS GROUP

The third edition of Water Works Magazine is being released the week of March 6. Featured in this issue of the quarterly publication, which is written by employees for employees, is the story of the teamwork that was critical to helping the Water Resource Recovery Facility move beyond last March's fire, an employee profile on GLWA's very own "Renaissance Man" Eric Kramp (Engineer, Water Supply Operations Group), and how Jenny Casler (IT Manager, Financial Services Group) saves money and gray hairs by carpooling to work via MichiVan. Also featured are the winning recipes from the Financial Services Group's annual Chili Cook-Off.

SECURITY AND INTEGRITY

During the month of February, the Security and Integrity Group participated in several extensive training efforts, such as Security Preparation for Emergency Response, First Aid and CPR, Report Writing Update and Staff and Command training.

ORGANIZATIONAL DEVELOPMENT

Talent Management

Since January 1, 2016, the organization has hired 168 employees. The total number of FTE's to date is 818. There are 54 open recruitments across the organization which are posted on the GLWA website.

ORGANIZATIONAL DEVELOPMENT (continued)

New Employee Orientation is currently being held each month at Water Works Park. To date, 253 employees have participated in the orientation. The next orientation is scheduled for March 24, 2017.

Training

- **Cornerstone Learning Management System Project** – The discovery phase has been completed. GLWA continues to be in the configuration phase of the project.
- **Apprenticeship Program** – Rollout of a three-year apprenticeship program has been completed. This partnership with Focus: HOPE and Henry Ford College have been developed to hire and train Electrical Instrumentation Control Technician (EICT) for GLWA. The program will provide On-The-Job training and education at no cost to the Apprentices.

LEGAL

General Counsel's February Report is an attachment to the Chief Executive Officer's Report.

FINANCIAL SERVICES GROUP

Procurement

With the new year underway, the Procurement team is off to a busy start having executed 13 new contracts in the month of January with an additional 62 contracts currently in process. The breakdown by type of contract is below:

Construction and Contract Services		
January 2017 - CONTRACTS EXECUTED		
Contract Type	Quantity	Amount
Construction	1	\$ 995,000
Consultant	9	\$ 2,512,131
Design Build	1	\$ 3,590,000
Legal Services	2	\$ 750,000
Grand Total	13	\$ 7,847,131

FINANCIAL SERVICES GROUP (continued)

Construction and Contract Services		
January 2017 - IN PROCESS		
Contract Type	Quantity	Amount
Construction	13	\$ 47,131,739
Consultant	36	\$ 67,419,931
Design Build	9	\$ 48,213,255
Lease Agreement	3	\$ 78,000
Legal Services	1	\$ 250,000
Grand Total	62	\$ 163,092,926

We are also excited to announce that effective Monday, March 3, 2017, the Construction & Contract Services (C&CS) will be transitioning to Oracle Work Asset Management (WAM). This means that all requests to purchase goods and/or services will now require a WAM requisition.

At first glance, the requirement to enter a new requisition for all good and services may appear to generate a larger workload, but it is in fact, quite the opposite.

By allowing end users to enter a requisition for their request, the need for time consuming physical distribution of paperwork will be eliminated. The pre-designed approval path within the Oracle WAM system will track both who approves documents and when. The new process provides commonality for all requisitions including the business process from WAM into the BS&A Purchase Order, Accounts Payable, and General Ledger modules. This use of technology improves internal controls and moves us one step further in our transparency initiatives by linking the contracts with financial systems. This is the first phase for non-capital improvement plan contract services. The second phase, which is anticipated to take place by July 1st, will encompass all Construction contracts. This phased rollout provides an adequate timeframe to ensure that all GLWA staff are properly trained to handle the conversion.

It also affords GLWA the ability to identify any potential concerns that may arise while transitioning to the new process, and providing an additional layer of support to an already proficient staff.

Financial Planning & Analysis

The FP&A team is in the process of meeting with the Budget Managers, team leads and others as they progress through the Capital Outlay planning project. Again, this is another area that lends itself to process improvement while we are developing the budget and five year plan with cross-functional teams consisting of Financial Services, Operations, Engineering, and others. This project will identify the GLWA assets that are not included in the Capital Improvement Plan and will aid in forecasting both budget and cash needs for repairs and maintenance of existing assets as well as the replacement of these assets as they near the end of their useful lives.

FINANCIAL SERVICES GROUP (continued)

The next steps in the financial planning cycle are shown below:

- ✓ Wednesday, March 1, 2017 at 10:00 a.m. – Public Hearing for FY 2018 Customer Charges
- ✓ Wednesday, March 1, 2017 at 10:00 a.m. – Public Hearing for FY 2017 & FY 2018 Biennial Budget
- ✓ Wednesday, March 8, 2017 at 1:00 p.m. – GLWA Board Workshop - Review of Operating Budgets and Charges
- ✓ Date TBD – GLWA Board Meeting - Review of Comprehensive Financial Plan: FY 2017 & FY 2018 Biennial Budget and Five Year Operating Area Plan, FY 2018 Schedule of Charges, Five Year Capital Improvement Plan, and Local System Revenue Requirements

Internal Audit

While preparing for the auditors arrival, the Internal Audit team began drafting procedures for the Financial Services Group. We strive for an effective internal control environment which includes documented finance procedures.

The purpose of the Finance procedures include the following:

- Formalize the processes in place
- Identify the internal controls in place for reliable financial reporting
- Ensure compliance with related laws, regulations and policies
- Define responsibilities for groups and employees
- Provide additional training material to our staff for a more well-rounded comprehension of our process as a whole
- Requires process changes to be considered and well documented

Thus far, we have successfully completed 15 Finance procedures including:

- Billing to Cash Receipt (2 procedures)
- Procurement to Payment Processes (4 procedures)
- Inventory
- Capital Assets (2 procedures)
- Bank Reconciliations
- Treasury
- General Ledger Maintenance, Journal Entries and Period End Close
- Long Term Debt
- Payroll
- Federal Grant Management

FINANCIAL SERVICES GROUP (continued)

WRAP Update

The Water Residential Assistance Program (“WRAP”) began accepting applications for customer assistance on March 2, 2016. The first community to opt into WRAP was the City of Detroit. Subsequently, outreach meetings were held in Wayne, Oakland and Macomb Counties to educate GLWA customer communities on details on the WRAP and what was required to “opt-in” to the program. Since those meetings, Wayne Metro, along with the Community Action Alliance partners, have been working with individual communities to get them opted into the WRAP. As of January 31, 2017, 60 communities have opted into the program.

Below is a summary of committed and spent WRAP funds as well as home audits and home repairs performed through January 31, 2017 for the City of Detroit and suburban participants:

WRAP Funding Status as of January 31, 2017

	<u>Detroit</u>	<u>Suburban</u>	<u>Total</u>
Completed Applications	9,689	1,943	11,632
Households Assisted	2,941	1,058	3,999
Shutoffs Avoided	2,051	339	2,390
Home Audits	617	124	741
Number of Home Repairs	379	70	449
Amount of Home Repairs	\$247,894	\$42,492	\$290,386
Average Cost of Home Repair	\$654	\$607	\$647
Total Bill Assistance Committed	\$816,956	\$345,675	\$1,162,631
Total Arrearage Assistance Committed	<u>\$1,662,433</u>	<u>\$354,864</u>	<u>\$2,017,296</u>
Total Assistance Committed	\$2,479,389	\$700,539	\$3,179,927
FY 2016 & FY 2107 WRAP Funds Uncommitted	\$227,483	\$4,252,210	\$4,479,693
Total Bill and Arrearage Assistance Paid to Date:	\$234,307	\$77,285	\$311,592

Respectfully submitted,



Sue F. McCormick
Chief Executive Officer

SFM/dlr

Attachment (General Counsel’s February Report)